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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,601

11/14/2006

Michiyo Goto

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4769

52989

7590

03/19/2010

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EXAMINER

CHAWAN, VIJAY B

ART UNIT

PAPER NUMBER

2626

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,601	<b>Applicant(s)</b> GOTO ET AL.	
	<b>Examiner</b> Vijay B. Chawan	<b>Art Unit</b> 2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-10 were cancelled by the preliminary amendment filed 9/05/06. Claims 11-20 are pending in the application.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 11, lines 8 and 12, "...processing suitable..." is not clear in that it is not clear as to what are the parameters that determine the suitability of process.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen (5,615,298).

As per claim 11, Chen teaches an error concealing apparatus comprising: a detection section that detects, when an error frame is generated, a non-error frame prior to said error frame; a decision section that decides whether the detected non-error frame is a speech frame or an audio frame; a replacement speech frame generation section that generates a replacement frame for said error frame from the non-error frame decided to be a speech frame through processing suitable for a speech frame; a replacement audio frame generation section that generates a replacement frame for said error frame from the non-error frame decided to be an audio frame through processing suitable for an audio frame; and a replacement section that replaces the replacement frame generated by said replacement speech frame generation section or said replacement audio frame generation section with said error frame and conceals said error frame (Col.5, line 15 - Col.6, line 18).

As per claim 12, Chen teaches the error concealing apparatus according to claim 11, wherein said replacement audio frame generation section comprises: a transient signal detection section that detects a start position of a transient signal included in said non-error frame; and an exclusion section that excludes parts before the start position of the transient signal detected by said transient signal detection section from said non-error frame in generating said replacement frame (Col.5, line 15 - Col.6, line 18).

As per claim 13, Chen teaches the error concealing apparatus according to claim 12, wherein said replacement audio frame generation section comprises: a division

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section that divides said non-error frame decided to be an audio frame into signals of a plurality of frequency bands; and a generation section that generates said replacement frame by performing extrapolation on said signals of a plurality of frequency bands (Col.5, line 15 - Col.6, line 18).

As per claim 14, Chen teaches the error concealing apparatus according to claim 12, wherein said replacement audio frame generation section comprises: a division section that divides said non-error frame decided to be an audio frame into signals of a plurality of frequency bands; a computation section that computes the degree of periodicity for each of said signals of a plurality of frequency bands; and a generation section that generates said replacement frame by performing processing corresponding to the degree of periodicity computed by said computation section on said signals of a plurality of frequency bands respectively (Col.5, line 15 - Col.6, line 18).

As per claim 15, Chen teaches the error concealing apparatus according to claim 14, wherein said generation section replaces said signal with noise or other signals obtained by said division section when the degree of periodicity computed by said computation section is low and performs extrapolation on said signal when the degree of periodicity computed by said computation section is high (Col.5, line 15 - Col.6, line 18).

As per claim 16, Chen teaches the error concealing apparatus according to claim 12, wherein said replacement speech frame generation section comprises: a duplication section that generates a replica of part of said non-error frame; and an adjusting section that adjusts a replacement position of said replica with respect to said error frame such

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that a pitch period of said replica matches a pitch period of said non-error frame (Col.5, line 15 - Col.6, line 18).

As per claim 17, Chen teaches the error concealing apparatus according to claim 12, wherein said replacement speech frame generation section comprises: a duplication section that duplicates part of said non-error frame; an adjusting section that adjusts a duplication segment in said duplication section such that a pitch period of the replica obtained by said duplication section matches a pitch period of said non-error frame; and a generation section that generates said replacement frame using the replica obtained by said duplication section (Col.5, line 15 - Col.6, line 18).

As per claim 18, Chen teaches the error concealing apparatus according to claim 12, wherein said replacement section performs smoothing on a frame boundary of the replacement frame generated by said replacement speech frame generation section or said replacement audio frame generation section (Col.5, line 15 - Col.6, line 18).

As per claim 19, Chen teaches the communication terminal apparatus comprising the error concealing apparatus according to claim 12 (Col.5, line 15 - Col.6, line 18).

As per claim 20, Chen teaches an error concealing method comprising: a detection step of detecting, when an error frame is generated, a non-error frame prior to said error frame; a decision step of deciding whether the detected non-error frame is a speech frame or an audio frame; a replacement speech frame generation step of generating a replacement frame of said error frame from the non-error frame decided to be a speech frame through processing suitable for a speech frame; a replacement audio frame generation step of generating a replacement frame of said error frame from

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the non-error frame decided to be an audio frame through processing suitable for an audio frame; and a replacement step of replacing the replacement frame generated in said replacement speech frame generation step or said replacement audio frame generation step with said error frame and concealing said error frame (Col.5, line 15 - Col.6, line 18).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see attached form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Vijay B. Chawan/  
Primary Examiner, Art Unit 2626

vbc  
3/18/10